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UNITED STATES DEPARTMENT OF AGRICULTURE.

FEDERAL HORTICULTURAL BOARD.

WASHINGTON, D. C.

JULY 14, 1915.

LETTER OF INFORMATION NO. 19.

DEAR SIR: As indicated on the following pages, larvæ of the European pine shoot moth (*Evetria buoliana*) have been taken in numbers on conifers from Holland by State inspectors of Connecticut, Massachusetts, New Jersey, New York, Pennsylvania, and Rhode Island. A closely related species, *Evetria resinella*, has been detected on *Pinus mughus* from Holland by the Ohio inspectors.

Three interceptions of egg masses of the gypsy moth (*Porthetria dispar*) on stock from Belgium, Holland, and Japan and three interceptions of nests of the brown-tail moth (*Euproctis chrysorrhæa*) on stock from France and Ireland have been reported.

The dagger moth (*Apatela auricoma*), recorded in previous letters, continues to enter on stock from France and Holland.

The black Parlatoria (*Parlatoria zizyphus*), which is so frequently seen on imported lemons, was found on citrus cuttings from the Philippine Islands. This appears to be the first record of the occurrence of this scale on imported nursery stock. In Mediterranean regions it is commonly seen on the fruit and is not infrequently the cause of heavy dropping of the foliage.

Carpophilus latinasus, on line 23, page 5, and on line 9, page 10, of News Letter No. 11, of July 9, 1914, should read "*Caulophilus latinasus*."

The references on pages 4 and 6 of News Letter No. 17, of March 1, 1915, recording *Phytomyza aquifolii* on boxwood from Holland, should be eliminated.

The publications of the Federal Horticultural Board heretofore known as News Letters will in the future be known as Letters of Information. The numbers will be continued the same as if there had been no change in title.

Yours, very truly,

C. L. MARLATT,
Chairman of Board.

LIST, BY COUNTRIES, OF PESTS COLLECTED.

[The number in parentheses following name of host indicates the number of times reported.]

Country of origin and name of pest.	Host.
AUSTRALIA.	
Aspidiotus sp. (scale insect).....	Hakea microcarpa (1).
BELGIUM.	
Aleyrodes sp. (white fly).....	Azalea (1).
Aspidiotus britannicus (scale insect).....	Bay (1).
Aspidiotus hederæ (ivy scale).....	Aspidistra (1).
Do.....	Bay (1).
Do.....	Palm (5).
Aspidiotus sp. (scale insect).....	Bay (1).
Chrysomphalus dictyospermi (scale insect).....	Palm (2).
Coccinellidae (beetles).....	Bay (1).
Coccus hesperidum (soft brown scale).....	Bay (8).
Lepidopterous larva.....	Bay (1).
Porthetria dispar (gipsy moth) (egg mass).....	Azalea (1).
Pseudococcus sp. (mealy bug).....	Do.
Do.....	Ficus (2).
Do.....	Palm (1).
Thysanura.....	Bay (1).
Disease: Exobasidium sp.....	Azalea (1).
BRAZIL.	
Aleurothrixus sp. (Aleyrodid).....	Jaboticaba (1).
Isosoma orchidearum (Cattleya fly) (punctures).....	Orchid (1).
Roaches.....	Do.
Targionia biformis (scale insect).....	Do.
CANADA.	
Aphid (plant louse) (eggs).....	Ribes nigrum (black currant) (1).
Aspidiotus perniciosus (San Jose scale).....	Peach (1).
Lecanium sp. (scale insect).....	Ribes nigrum (black currant) (1).
Lepidosaphes ulmi (oyster-shell scale).....	Apple (1).
Disease: Bacterium tumefaciens (crown gall).....	Peach (1).
CHINA.	
Kermes sp. (?) (scale insect).....	Persimmon (1).
Pseudaulonia trilobitiformis (scale insect).....	Do.
Pseudococcus sp. (mealy bug).....	Bastard banyan (1).
COLOMBIA.	
Ants.....	Orchid (10).
Audreia sp. (cockroach).....	Orchid (2).
Blaberus sp. (roach) (egg case).....	Orchid (1).
Blattid (roach) (nymph).....	Do.
Camponotus abdominalis (?) (ant).....	Do.
Camponotus sp. (?) (ant).....	Do.
Capsid.....	Do.
Cryptocerus sp. (ant).....	Do.
Cryptoptilum sp. (Gryllid).....	Do.
Dasyposoma (?) sp. (roach).....	Do.
Dasyposoma sp.? (roach) (nymph).....	Do.
Fulvius atratus (Hemipteron; Capsidae).....	Do.
Isosoma orchidearum (Cattleya fly) (punctures).....	Orchid (9).
Largus cinctus.....	Orchid (1).
Lepidopterous cocoon, parasitized.....	Do.
Nyctobora sp. (cockroach).....	Do.
Periplaneta australasiae (roach).....	Do.
Phoetalia laevigata.....	Do.
Plagirolepis sp. (ant).....	Do.
Psocids.....	Orchid (2).
Pyralid larva.....	Do.
Roaches.....	Orchid (4).
Tenthecoris bicolor (Hemipteron).....	Orchid (2).
Thrips.....	Do.
Disease: Saprophytic fungi.....	Orchid (1).

List, by countries, of pests collected—Continued.

Country of origin and name of pest.	Host.
COSTA RICA.	
Aspidiotus subsimilis (scale insect).....	Avocado (1).
Beetles, probably new genus near Coccotrypes.....	Copaifera hemitomophylla (1).
EGYPT.	
Rhizoglyphus hyacinthi (bulb mite).....	Colocasia sp. (1).
ENGLAND.	
Aphid (plant louse).....	Fruit trees (1).
Aphid (plant louse) (eggs).....	Apple (1).
Aspidiotus hederae (ivy scale).....	Boxwood (1).
Do.....	Orchid (1).
Diaspis boisduvalii (scale insect).....	Do.
Geometrid.....	Cassinia leptophylla (1).
Tingitid (lacewing) (eggs).....	Rhododendron (1).
Diseases:	
Bacterium tumefaciens (crown gall).....	Manetti (1).
Do.....	Apple (1).
Pestalozzia sp.....	Rhododendron (1).
FRANCE.	
Apanteles sp.....	Berberis (barberry) (1).
Apatela auricoma (dagger moth).....	(?).
Do.....	Ampelopsis (1).
Do.....	Apple (3).
Do.....	Berberis (barberry) (1).
Do.....	Birch (1).
Do.....	Cherry (5).
Do.....	Cranberry (1).
Do.....	Deutzia pride of Rochester (1).
Do.....	Fruit stocks (2).
Do.....	Hydrangea (1).
Do.....	Lilac (2).
Do.....	Lonicera aureo-reticulata (1).
Do.....	Maple (1).
Do.....	Pear (6).
Do.....	Philadelphus coronarius (1).
Do.....	Plum (2).
Do.....	Quince (1).
Do.....	Rose (1).
Do.....	Snowball (2).
Do.....	Symphoricarpus (1).
Apatela auricoma (?) (dagger moth) (?).....	Birch (1).
Do.....	Buckthorn (1).
Aphid (plant louse).....	Berberis (barberry) (1).
Do.....	Beech (1).
Do.....	Thuja orientalis aurea (1).
Do.....	Buckthorn (1).
Do.....	Cedar (1).
Do.....	Cherry (1).
Do.....	Elder tree (1).
Do.....	Rose (1).
Aspidiotus ostreaeformis (scale insect).....	Fraxinus (ash) (1).
Aulacaspis rosae (rose scale).....	Rose stocks (1).
Bag worm.....	Picea pungens (1).
Cilix glaucata (?) (Family Drepanulidae) (Lepidoptera).....	Pear stocks (1).
Emphytus cinctus (sawfly).....	In stalk of rose stock (1).
Eriosoma lanigera (woolly aphis).....	Apple seedlings (1).
Do.....	Apple stocks (1).
Do.....	Fruit stocks (2).
Do.....	Paradise apple (1).
Do.....	Pear stocks (1).
Euproctis chrysorrhoea (brown-tail moth) (nest).....	(?).
Euproctis chrysorrhoea (brown-tail moth) (old cocoon).....	Pinus mughus (1).
Evetria buoliana (?) European pine shoot moth (?).....	Do.
Evetria sp. (?).....	Pinus austriaca (1).

List, by countries, of pests collected—Continued.

Country of origin and name of pest.	Host.
FRANCE—continued.	
Grasshopper, nymph (Locustidae).....	Norway spruce.
Grub, white.....	In packing around seedlings (1).
Hemiteles sp. (hyperparasite).....	(?).
Lachnosterna sp. (beetle, larvae).....	In packing (2).
Lepidopterous larva.....	Coniferous tree (1).
Lepidopterous pupa.....	Apple (1).
Do.....	Elm (1).
Do.....	Lilac (1).
Do.....	Shrubs (1).
Do.....	Snowball (1).
Lepidopterous pupa cases.....	(?).
Lepidosaphes ulmi (oyster-shell scale).....	Boxwood (1).
Do.....	Lilac (1).
Macrosiphum circumflexum (aphid).....	Helleborus niger (1).
Noctuid larva.....	(?).
Notolophus antiqua (European tussock moth) (eggs).....	(?).
Do.....	Birch (1).
Do.....	Buckthorn (1).
Do.....	Dogwood (1).
Do.....	Pear (1).
Do.....	Privet (1).
Do.....	Tamarix (2).
Notolophus antiqua (?) (European tussock moth) (?) (eggs).....	Fruit stock (1).
Reduviid.....	Apple seeds (1).
Sawfly (?) borer.....	Tips of Manetti stock (3).
Spider, red.....	(?).
Tiger moth (?) cocoon.....	Fruit tree stocks (1).
Tortrix pronubana.....	Abies douglasii (1).
Do.....	Cedar (1).
Diseases:	
Ascomycete.....	Rhododendron (1).
Bacillus amylovorus (blight).....	Pear seedlings (1).
Do.....	Pear stock (1).
Bacillus amylovorus (?) (blight).....	Do.
Bacterium tumefaciens (crown gall).....	Apple (2).
Do.....	Dormant nursery stock (1).
Do.....	Fruit stocks (2).
Do.....	Hippophae (1).
Do.....	Lilac (1).
Do.....	Pear (2).
Do.....	Pear stocks (3).
Do.....	Plum stocks (1).
Do.....	Privet (1).
Bacterium tumefaciens (hairy root).....	Apple (2).
Do.....	Apple seedlings (2).
Do.....	Apple stocks (4).
Do.....	Cherry (1).
Do.....	Fruit stocks (1).
Do.....	Fruit-tree stocks (1).
Do.....	Ornamental shrubs (1).
Do.....	Pear (1).
Botrytis vulgaris (gray mold).....	Fruit stocks (1).
Mahonia leaf spot fungus.....	Berberis (barberry) (1).
Pestalozzia guepini.....	Rhododendron (1).
GUATEMALA.	
Chrysomphalus perseae (scale insect).....	Orchid (1).
Isosoma orchidearum (Cattleya fly) (punctures).....	Do.
HOLLAND.	
Agriotes sp. (wireworm).....	In soil around rhododendron (1).
Apatela auricoma (dagger moth).....	Cherry (1).
Do.....	Rose (1).

List, by countries, of pests collected—Continued.

Country of origin and name of pest.	Host.
HOLLAND—continued.	
Aphid (plant louse).....	Berberis (barberry) (1).
Do.....	Juniper (1).
Do.....	Maple (2).
Do.....	Rose (1).
Do.....	Spruce (1).
Aspidiotus britannicus (scale insect).....	Bay (1).
Aspidiotus hederæ (ivy scale).....	Camellia (1).
Beetle, small.....	Rose (1).
Cercyon haemorrhoidalis (beetle; Hydrophilidae).....	Rhododendron (1).
Chaitophorus sp. (plant louse).....	Ornamental trees (1).
Coccus hesperidum (soft brown scale).....	Bay (2).
Curculionid larva.....	In soil around rhododendron (1).
Diaspis carueli (juniper scale).....	Japan golden juniper (1).
Dichomeris marginellus (juniper web worm).....	Chinese golden juniper (1).
Diprion pini (sawfly).....	Pinus mughus (pine) (4).
Eriophyes sp. (mite).....	Boxwood (7).
Evetria buoliana (European pine shoot moth).....	231 pines (2 shipments).
Do.....	Pinus montana (pine) (1).
Do.....	14 Pinus mughus (1 shipment).
Do.....	Pinus mughus (3 shipments).
Do.....	300 Pinus mughus (3 shipments).
Do. (at least 500).....	Pinus mughus (1 shipment).
Evetria buoliana (European pine shoot moth).....	Pinus sylvestris (1).
Do.....	Pinus uncinata (1).
Do.....	Pinus Wateriana (1).
Evetria buoliana (European pine shoot moth, work of).....	Pinus mughus (1).
Do.....	Pinus mughus (?) (1).
Evetria buoliana (?) (European pine shoot moth) (?).....	Pinus montana (1).
Do.....	Pinus mughus (2).
Evetria resinella (moth).....	Pinus mughus (1).
Grubs.....	In soil around plants (1).
Haltica bimaculata (beetle).....	Rhododendron (1).
Hister stercorarius (beetle, more or less beneficial).....	In soil around rhododendron (1).
Lace bug eggs.....	Rhododendron (1).
Lecanium sp. (scale insect).....	Boxwood (?) (1).
Lepidopterous cocoon and parasites.....	Azalea (1).
Lepidopterous larva.....	Boxwood (1).
Do.....	Rhododendron (1).
Lepidosaphes ulmi (Oyster-shell scale).....	Boxwood (58).
Do.....	Crataegus (hawthorn) (1)
Do.....	Lilac (1).
Do.....	Rose (1).
Do.....	Shrub (1).
Do.....	(?).
Leptobyrsa explanata (Tingitid).....	Rhododendron (1).
Macrocentrus (?) sp.....	Hydrangea (1).
Mite eggs.....	Juniper (8).
Mites.....	Gladiolus (1).
Muscoid fly.....	Rose (1).
Notolophus antiqua (European tussock moth) (eggs).....	Horse chestnut (1).
Do.....	Linden (1).
Do.....	Maple (3).
Do.....	Prunus pissardi (1).
Do.....	Rhododendron (1).
Do.....	Rose (3).
Phyllaphis fagi (?) (plant louse).....	Purple beech (1).
Phytomyza aquifolii (Dipterous leaf miner).....	Holly (2).
Porthetria dispar (gipsy moth) (egg mass).....	Blue spruce (2).
Psocid, small.....	Rose (1).
Psychodidae (Diptera).....	Spruce (1).
Psylla buxi.....	Boxwood (25).
Psyllid.....	Retinospora (1).
Sawfly cocoon.....	Spruce (1).
Sawfly larva.....	Boxwood (1).

List, by countries, of pests collected—Continued.

Country of origin and name of pest.	Host.
HOLLAND—continued.	
Spider, red.....	(?).
Do.....	Boxwood (1).
Timid eggs (lacewing).....	Rhododendron (8).
Diseases:	
Ascomycete.....	Rhododendron (1).
Ascomycetous fungus.....	Kalmia leaves (1).
Bacterium tumefaciens (crown gall).....	Azalea (1).
Do.....	Pear (3).
Do.....	Rhododendron (2).
Botrytis sp.....	Rose (2).
Cytospora.....	Norway maple (1).
Dendrochium albo-cinereum.....	Norway maple (?) (1).
Exobasidium sp.....	Rhododendron (1).
Exobasidium sp. (?).....	Azalea (1).
Do.....	Rhododendron (2).
Fusarium sp.....	Rhododendron (1).
Pestalozzia guepini.....	Prunus laurocerasus (1).
Do.....	Rhododendron (1).
Pestalozzia guepini Desm. var.....	Do.
Pestalozzia sp.....	Rhododendron (5).
Do.....	(?).
Phyllosticta sp.....	Cydonia japonica (1).
INDIA.	
Near Petalocephala perductalis (family Jassidae).....	Erianthus fulvus (1).
IRELAND.	
Euproctis chrysorrhoea (brown-tail moth) (nest).....	Rose (1).
ITALY.	
Tenuipalpus glaber (red spider).....	Walnut (1).
JAPAN.	
Agromyza websteri (wistaria gall fly).....	Wistaria (1).
Aleyrodes sp. (white fly).....	Camellia (1).
Do.....	Eleagnus (1).
Anomala sp. (beetle; grub).....	In soil around plants (1).
Ants.....	Do.
Aphid (plant louse).....	Coniferous trees (1).
Do.....	Japanese forest cedar (1).
Bagworm cocoons.....	Do.
Bud moth larvae.....	Prunus sps. (1).
Case bearer.....	(?).
Cecidomyiid galls.....	Pine (1).
Ceroplastes ceriferus (wax scale).....	Camellia (1).
Chionaspis wistariae (wistaria scale).....	Wistaria (1).
Cicada eggs.....	Camellia (1).
Do.....	Persimmon (1).
Hemichionaspis aspidistrae (scale insect).....	Ribbon grass (1).
Hemipterous insect, nest of.....	Pine (1).
Juniper web worm.....	(?).
Lepidopterous cocoon.....	Azalea (1).
Lepidopterous larvae.....	Boxwood (1).
Lepidosaphes lasianthi (scale insect).....	Camellia (2).
Lepidosaphes newsteadii (scale insect).....	Sciadopitys verticillata (1).
Mantis egg masses.....	Japanese forest cedar (1).
Do.....	Persimmon (1).
Do.....	Wistaria (1).
Mites (2 species).....	Cycas revoluta stems (1).
Papilio sp.....	Pine (1).
Parlatoria pergandei (chaff scale).....	Camellia (1).

List, by countries, of pests collected—Continued.

Country of origin and name of pest.	Host.
JAPAN—continued.	
<i>Parlatoria pergandei</i> (chaff scale).....	Maple (1).
<i>Parlatoria theae</i> (scale insect).....	Do.
Peach root borer.....	Peach (1).
<i>Porthetria dispar</i> (gipsy moth) (old egg clusters).....	Cedar (1).
<i>Pseudaonidia duplex</i> (scale insect).....	Camellia (2).
<i>Pseudaonidia paeoniae</i> (scale insect).....	Azalea (4).
<i>Pseudococcus</i> sp. (mealy bug).....	Azalea (2).
Do.....	Persimmon (1).
Do.....	<i>Taxus cuspidata</i> (1).
Psychid cases.....	Azaleas (1).
Sawfly (?) cocoons (16).....	Do.
<i>Thyridopteryx ephemeriformis</i> (bagworm).....	Persimmon (1).
Diseases:	
<i>Bacterium tumefaciens</i> (crown gall).....	Roots of <i>Photinia glabra</i> (1).
Juniper rust.....	<i>Juniperus chinensis</i> (1).
<i>Woroninella puerariae</i>	Kudzu vines (<i>Pueraria thunbergiana</i>) (2).
MEXICO.	
<i>Calandra oryza</i> (rice weevil).....	<i>Quercus insignis</i> (1).
<i>Camponotus abdominalis</i> (?) (ant).....	Orchid (1).
<i>Rhizoglyphus phylloxerae</i> (mite).....	<i>Quercus insignis</i> (1).
<i>Tyroglyphus</i> sp. (mite).....	Do.
PANAMA.	
<i>Asterolecanium</i> sp. (scale insect).....	Orchid (1).
<i>Diaspis boisduvalii</i> (scale insect).....	Do.
<i>Hemichionaspis aspidistrae</i> (aspidistra scale).....	Palm (1).
<i>Hemichionaspis minor</i> (white scale of cotton).....	Orchid (1).
<i>Ischnaspis longirostris</i> (scale insect).....	(?).
<i>Isosoma orchidearum</i> (Cattleya fly, evidences of).....	Orchid (1).
<i>Pseudococcus</i> sp. (mealy bug).....	Palm (1).
<i>Saissetia hemisphaerica</i> (hemispherical scale).....	Do.
<i>Saissetia oleae</i> (black scale).....	(?).
PHILIPPINE ISLANDS.	
<i>Aspidiotus lataniae</i> (scale insect).....	Palm trees (1).
<i>Chrysomphalus aurantii</i> (red scale of California).....	Citrus cuttings (1).
<i>Coccus hesperidum</i> (soft brown scale).....	Do.
<i>Lepidosaphes beekii</i> (purple scale).....	Do.
<i>Lepidosaphes gloverii</i> (scale insect).....	Do.
<i>Parlatoria pergandei</i> (chaff scale).....	Do.
<i>Parlatoria zizyphus</i> (scale insect).....	Do.
<i>Pseudaonidia articulatus</i> (scale insect).....	Do.
<i>Pseudococcus</i> sp. (mealy bug).....	Do.
VENEZUELA.	
Ants.....	Orchid (2).
Blattid nymph (roach).....	Orchid (1).
<i>Isosoma orchidearum</i> (Cattleya fly, evidences of).....	Orchid (3).
<i>Periplaneta australasiae</i> (roach).....	Orchid (1).
<i>Silvanus</i> sp. (Cucujidae).....	(?).
<i>Tenthecoris bicolor</i> (Capsidae).....	Orchid (2).
<i>Wasmannia auropunctata</i> , undescribed variety of.....	Orchid (1).

LIST, BY STATES, OF PESTS COLLECTED.

[The number in parentheses following name of country indicates the number of times reported.]

State in which collected and name of pest.	Host.	Country of origin.
ALABAMA.		
Disease: Cytospora	Norway maple	Holland (1).
CALIFORNIA.		
Agromyza websteri (Wistaria gall fly)	Wistaria	Japan (1).
Aleyrodes sp. (white fly)	Camellia	Do.
Do.	Eleagnus	Do.
Aspidiotus lataniae (scale insect)	Palm trees	Philippine Islands (1).
Bud moth larvae	Prunus sps.	Do.
Ceroplastes ceriferus (wax scale)	Camellia	Do.
Chionaspis wistariae (Wistaria scale)	Wistaria	Do.
Cicada eggs	Camellia	Do.
Do.	Persimmon	Do.
Hemichionaspis aspidistrae (Aspidistra scale)	Palm	Panama (1).
Do.	Ribbon grass	Japan (1).
Hemichionaspis minor (white scale of cotton)	Orchid	Panama (1).
Hymenopterous insect, nest of	Pine	Japan (1).
Ischnaspis longirostris (scale insect)	(?)	Panama (1).
Lepidopterous larvae	Boxwood	Japan (1).
Lepidosaphes lasianthi (scale insect)	Camellia	Do.
Lepidosaphes newsteadii (scale insect)	Sciadopitys verticillata	Do.
Mantis eggs	Persimmon	Do.
Do.	Wistaria	Do.
Papilio sp.	Pine	Do.
Parlatoria pergandei (chaff scale)	Camellia	Do.
Parlatoria theae (scale insect)	Maple	Do.
Peach root borer	Peach	Do.
Porthetria dispar (gipsy moth) (old egg clusters)	Cedar	Do.
Pseudaonidia duplex (scale insect)	Camellia	Japan (2).
Pseudococcus sp. (mealy bug)	Azalea	Japan (1).
Do.	Bastard Banyan	China (1).
Do.	Palm	Panama (1).
Do.	Persimmon	Japan (1).
Saissetia hemisphaerica (hemispherical scale)	Palm	Panama (1).
Saissetia oleae (black scale)	(?)	Do.
Thyridopteryx ephemeræformis (bagworm)	Persimmon	Japan (1).
Disease: Juniper rust	Juniperus chinensis	Do.
COLORADO.		
Spider, red	(?)	France (1).
Do.	(?)	Holland (1).
CONNECTICUT.		
Aspidiotus hederæ (ivy scale)	Palm	Belgium (1).
Coccinellidae (Beetles)	Bay	Do.
Coccus hesperidum (soft brown scale)	do.	Belgium (3).
Emphytus cinctus (sawfly)	Rose stock	France (1).
Evtria buoliana (European pine shoot moth) (work of)	Pinus mughus	Holland (1).
Lepidopterous cocoon and parasites	Azalea	Do.
Lepidopterous larva	Bay	Belgium (1).
Lepidopterous pupa	Elm	France (1).
Lepidosaphes ulmi (oyster-shell scale)	Boxwood	Holland (8).
Notolophus antiqua (?) (European tussock moth) (?) (eggs)	Fruit stock	France (1).
Sawfly (?) borer	Tips of Manetti stock	France (3).
Thysanura	Bay	Belgium (1).
Diseases:		
Ascomycete	Rhododendron	France (1).
Do.	do.	Holland (1).
Bacterium tumefaciens (crown gall)	Apple	France (1).
Do.	Privet	Do.
Bacterium tumefaciens (hairy root)	Apple	Do.
Pestalozzia guepini	Rhododendron	Do.

List, by States, of pests collected—Continued.

State in which collected and name of pest.	Host.	Country of origin.
DISTRICT OF COLUMBIA.		
Aleurothrixus sp. (Aleyrodid).....	Jaboticaba.....	Brazil (1).
Aphid (plant louse) (eggs).....	Ribes nigrum (black currant).....	Canada (1).
Aspidiotus sp. (scale insect).....	Hakea microcarpa.....	Australia (1).
Aspidiotus subsimilis (scale insect).....	Avocado.....	Costa Rica (1).
Beetles, probably new genus near Coccotrypes.....	Copaifera hemitomophylla.....	Do.
Calandra oryza (rice weevil).....	Quercus insignis.....	Mexico (1).
Camponotus abdominalis (?) (ant).....	Orchid.....	Do.
Chrysomphalus aurantii (red scale of California).....	Citrus cuttings.....	Philippine Islands (1).
Coccus hesperidum (soft brown scale).....	Citrus cuttings.....	Philippine Islands (1).
Geometrid.....	Cassinia leptophylla.....	England (1).
Kermes sp. (?) (scale insect).....	Persimmon.....	China (1).
Lecanium sp. (scale insect).....	Ribes nigrum (black currant).....	Canada (1).
Lepidosaphes beckii (purple scale).....	Citrus cuttings.....	Philippine Islands (1).
Lepidosaphes gloverii (scale insect).....	do.....	Do.
Lepidosaphes ulmi (oyster-shell scale).....	Boxwood.....	Holland (1).
Parlatoria pergandei (chaff scale).....	Citrus cuttings.....	Philippine Islands (1).
Parlatoria zizyphus (scale insect).....	do.....	Do.
Near Petalocephala perductalis (family Jassidae).....	Erianthus fulvus.....	India (1).
Phytomyza aquifolii (Dipterous leaf miner).....	Holly.....	Holland (1).
Pseudaonidia articulatus (scale insect).....	Citrus cuttings.....	Philippine Islands (1).
Pseudaonidia trilobitiformis (scale insect).....	Persimmon.....	China (1).
Pseudococcus sp. (mealy bug).....	Citrus cuttings.....	Philippine Islands (1).
Rhizoglyphus hyacinthi (bulb mite).....	Colocasia sp.....	Egypt (1).
Rhizoglyphus phylloxerae (mite).....	Quercus insignis.....	Mexico (1).
Tenuipalpus glaber (red spider).....	Walnut.....	Italy (1).
Tyroglyphus sp. (mite).....	Quercus insignis.....	Mexico (1).
FLORIDA.		
Lepidosaphes ulmi (oyster-shell scale).....	Rose.....	Holland (1).
Psocid, small.....	do.....	Do.
Disease: Exobasidium sp.....	Azalea.....	Belgium (1).
HAWAII.		
Anomala sp. (beetle; grub).....	In soil around plants.....	Japan (1).
Ants.....	do.....	Do.
ILLINOIS.		
Aspidiotus ostreaeformis (scale insect).....	Fraxinus (ash).....	France (1).
Lepidopterous pupa.....	Lilac.....	Do.
Do.....	Snowball.....	Do.
Disease: Bacterium tumefaciens (crown gall).....	Hippophae.....	Do.
INDIANA.		
Aspidiotus hederæ (ivy scale).....	Bay.....	Belgium (1).
Chaitophorus sp. (plant louse).....	Ornamental trees.....	Holland (1).
Coccus hesperidum (soft brown scale).....	Bay.....	Belgium (1).
Lepidosaphes ulmi (oyster-shell scale).....	Boxwood.....	Holland (3).
Notolophus antiqua (European tussock moth) (eggs).....	Rose.....	Holland (1).
Sawfly larva.....	Boxwood.....	Do.
Tortrix pronubana.....	Abies douglasii.....	France (1).
Do.....	Cedar.....	Do.
Diseases:		
Fusarium sp. l.....	Rhododendron.....	Holland (1).
Pestalozzia guepini.....	Prunus laurocerasus.....	Do.
IOWA.		
Apanteles sp.....	Berberis (barberry).....	France (1).
Apatela auricoma (dagger moth).....	Ampelopsis.....	Do.
Do.....	Apple.....	France (3).
Do.....	Barberry.....	France (1).
Do.....	Birch.....	Do.
Do.....	Cherry.....	France (5).

List, by States, of pests collected—Continued.

State in which collected and name of pest.	Host.	Country of origin.
IOWA—continued.		
<i>Apatela auricoma</i> (dagger moth).....	Cranberry.....	France (1).
Do.....	Hydrangea.....	Do.
Do.....	Lilac.....	France (2).
Do.....	<i>Lonicera aureo-reticulata</i>	France (1).
Do.....	Maple.....	Do.
Do.....	Pear.....	France (3).
Do.....	<i>Philadelphus coronarius</i>	France (1).
Do.....	Plum.....	France (2).
Do.....	Quince.....	France (1).
Do.....	Rose.....	Holland (1).
Do.....	Snowball.....	France (1).
Do.....	<i>Symphoricarpus</i>	Do.
<i>Apatela auricoma</i> (?) (dagger moth) (?).....	Birch.....	Do.
<i>Apatela auricoma</i> (?) (dagger moth) (?).....	Buckthorn.....	France (1).
Bagworm.....	<i>Picea pungens</i>	Do.
<i>Coccus hesperidum</i> (soft brown scale).....	Bay.....	Belgium (1).
<i>Hemiteles</i> sp. (hyperparasite).....	(?).....	France (1).
<i>Lepidosaphes ulmi</i> (oyster-shell scale).....	Apple.....	Canada (1).
<i>Macrocentrus</i> (?) sp.....	Hydrangea.....	Holland (1).
<i>Notolophus antiqua</i> (European tussock moth) (eggs).....	Birch.....	France (1).
Do.....	Buckthorn.....	Do.
Do.....	Horse chestnut.....	Holland (1).
Do.....	Maple.....	Holland (2).
Do.....	<i>Prunus pissardi</i>	Holland (1).
Do.....	Rose.....	Do.
Disease: <i>Bacterium tumefaciens</i> (crown gall).....	Lilac.....	France (1).
KANSAS.		
<i>Eriosoma lanigera</i> (woolly aphid).....	Apple.....	France (1).
Grubs.....	In soil around plants.....	Holland (1).
<i>Lachnosterna</i> sp. (beetle, larvae).....	In packing.....	France (2).
Lepidopterous pupa cases.....	(?).....	France (1).
<i>Lepidosaphes ulmi</i> (oyster-shell scale).....	Boxwood.....	Holland (1).
Mites.....	<i>Gladiolus</i>	Do.
<i>Notolophus antiqua</i> (European tussock moth).....	Dogwood.....	France (1).
Do.....	Privet.....	Do.
Reduviid.....	Apple seeds.....	Do.
Diseases:		
<i>Bacterium tumefaciens</i> (crown gall).....	Pear.....	Holland (1).
<i>Bacterium tumefaciens</i> (hairy root).....	Apple.....	France (1).
KENTUCKY.		
Aphids (plant lice).....	Cherry.....	France (1).
<i>Lepidosaphes ulmi</i> (oyster-shell scale).....	Boxwood.....	Holland (4).
<i>Macrosiphum circumflexum</i> (aphid).....	<i>Helleborus niger</i>	France (1).
MARYLAND.		
<i>Aleyrodes</i> sp. (white fly).....	Azalea.....	Belgium (1).
<i>Lepidosaphes ulmi</i> (oyster-shell scale).....	Boxwood.....	Holland (4).
Psyllid.....	<i>Retinospora</i>	Holland (1).
MASSACHUSETTS.		
Aphids (plant lice).....	Spruce.....	Holland (1).
<i>Aspidiotus britannicus</i> (scale insect).....	Bay.....	Belgium (1).
<i>Aspidiotus hederæ</i> (ivy scale).....	<i>Aspidistra</i>	Do.
Do.....	Boxwood.....	England (1).
Do.....	Palm.....	Belgium (2).
<i>Aspidiotus</i> sp. (scale insect).....	Bay.....	Belgium (1).
Case bearer.....	(?).....	Japan (1).
<i>Coccus hesperidum</i> (soft brown scale).....	Bay.....	Belgium (1).
<i>Diaspis boisduvallii</i> (scale insect).....	Orchid.....	England (1).
<i>Diprion pini</i> (sawfly).....	<i>Pinus mughus</i> (pine).....	Holland (4).
<i>Euproctis chrysorrhoea</i> (brown-tail moth) (nest).....	Rose.....	Ireland (1).

List, by States, of pests collected—Continued.

State in which collected and name of pest.	Host.	Country of origin.
MASSACHUSETTS—continued.		
<i>Evtria buoliana</i> (European pine shoot moth).....	281 Pines.....	Holland (2 shipments).
Do.....	14 <i>Pinus mughus</i>	Holland (1 shipment).
Do.....	<i>Pinus mughus</i>	Do.
Do.....	300 <i>Pinus mughus</i>	Holland (3 shipments).
<i>Evtria buoliana</i> (European pine shoot moth) (work of).....	<i>Pinus mughus</i> (?).....	Holland (1).
<i>Haltica bimaculata</i> (beetle).....	<i>Rhododendron</i>	Do.
Juniper web worm.....	(?).....	Japan (1).
<i>Lepidosaphes ulmi</i> (oyster-shell scale).....	Boxwood.....	Holland (6).
Do.....	Lilac.....	Holland (1).
<i>Notothophus antiqua</i> (European tussock moth)(eggs).....	<i>Rhododendron</i>	Do.
Diseases:		
<i>Bacterium tumefaciens</i> (crown gall).....	<i>Azalea</i>	Do.
Do.....	<i>Rhododendron</i>	Holland (2).
<i>Woroninella puerariae</i>	Kudzu vines, <i>Pueraria thun-</i> <i>bergiana</i>	Japan (2).
MINNESOTA.		
Aphid (plant louse).....	Buckthorn.....	France (1).
Do.....	Cedar.....	Do.
Do.....	Elder tree.....	Do.
Do.....	Rose.....	Do.
<i>Lepidosaphes ulmi</i> (oyster-shell scale).....	<i>Crataegus</i> (hawthorn).....	Holland (1).
Do.....	Lilac.....	France (1).
MISSOURI.		
Aphids (plant lice).....	<i>Thuja orientalis aurea</i>	France (1).
<i>Isosoma orchidearum</i> (<i>Cattleya</i> fly) (punctures).....	Orchid.....	Colombia (1).
<i>Lepidosaphes ulmi</i> (oyster-shell scale).....	Boxwood.....	Holland (1).
Psocids.....	Orchid.....	Colombia (1).
<i>Psylla buxi</i>	Boxwood.....	Holland (2).
Tiger moth (?) cocoon.....	Fruit-tree stocks.....	France (1).
Diseases:		
<i>Bacterium tumefaciens</i> (hairy root).....	Fruit stocks.....	France (2).
Do.....	Ornamental shrubs.....	France (1).
Saprophytic fungi.....	Orchid.....	Colombia (1).
NEBRASKA.		
Aphids (plant lice).....	<i>Berberis</i> (barberry).....	France (1).
Do.....	Rose.....	Holland (1).
<i>Lecanium</i> sp. (scale insect).....	Boxwood (?).....	Do.
<i>Lepidosaphes ulmi</i> (oyster-shell scale).....	Boxwood.....	Holland (6).
<i>Notothophus antiqua</i> (European tussock moth) (eggs).....	Tamarix.....	France (1).
<i>Psychodidae</i> (Diptera).....	Spruce.....	Holland (1).
Sawfly cocoon.....	do.....	Do.
NEW HAMPSHIRE.		
<i>Eriosoma lanigera</i> (woolly aphis).....	Fruit stocks.....	France (1).
<i>Lepidosaphes ulmi</i> (oyster-shell scale).....	(?).....	Holland (1).
<i>Notothophus antiqua</i> (European tussock moth) (eggs).....	Maple.....	Do.
<i>Porthetria dispar</i> (gipsy moth) (egg mass).....	Blue spruce.....	Holland (2).
Diseases:		
<i>Bacterium tumefaciens</i> (crown gall).....	Dormant nursery stock.....	France (1).
Do.....	Fruit stocks.....	Do.
NEW JERSEY.		
<i>Agriotes</i> sp. (wireworm).....	In soil around <i>rhododendron</i> ...	Holland (1).
Aphids (plant lice).....	Maples.....	Do.
<i>Aspidiotus hederæ</i> (ivy scale).....	Camellia.....	Do.
Do.....	Orchid.....	England (1).
<i>Aulacaspis rosæ</i> (rose scale).....	Rose stocks.....	France (1).
Cecidomyiid galls.....	Pine.....	Japan (1).
<i>Cercyon haemorrhoidalis</i> (beetle; <i>Hydrophilidae</i>).....	<i>Rhododendron</i>	Holland (1).
<i>Chrysomphalus dictyospermi</i> (scale insect).....	Palm.....	Belgium (2).

List, by States, of pests collected—Continued.

State in which collected and name of pest.	Host.	Country of origin.
NEW JERSEY—continued.		
Chrysomphalus perseae (scale insect).....	Orchid.....	Guatemala (1).
Coccus hesperidum (soft brown scale).....	Bay.....	Belgium (2).
Do.....	do.....	Holland (1).
Curculionid larva.....	In soil around rhododendron...	Holland.
Evetria buoliana (European pine shoot moth).....	Pinus montana (pine).....	} Holland (6).
Do.....	Pinus mughus (pine).....	
Do.....	Pinus wateriana.....	
Hister stercorarius (beetle, more or less beneficial)...	In soil around rhododendron...	Holland (1).
Isosoma orchidearum (Cattleya fly, punctures).....	Orchid.....	Brazil (1).
Do.....	do.....	Colombia (2).
Do.....	do.....	Guatemala (1).
Do.....	do.....	Venezuela (1).
Lepidopterous larva.....	Boxwood.....	Holland (1).
Do.....	Rhododendron.....	Do.
Lepidopterous pupa.....	Shrubs.....	France (1).
Lepidosaphes ulmi (oyster-shell scale).....	Boxwood.....	Holland (9).
Noctuid larva.....	(?).....	France (1).
Parlatoria pergandei (chaff scale).....	Maple.....	Japan (1).
Phytomyza aquifolii (Dipterous leaf miner).....	Holly.....	Holland (1).
Pseudanidia paeoniae (scale insect).....	Azalea.....	Japan (3).
Pseudococcus sp. (mealy bug).....	do.....	Japan (1).
Do.....	Ficus.....	Belgium (2).
Do.....	Palm.....	Belgium (1).
Do.....	Taxus cuspidata.....	Japan (1).
Psychid cases.....	Azalea.....	Do.
Roaches.....	Orchid.....	Brazil (1).
Saw-fly (?) cocoons (16).....	Azalea.....	Japan (1).
Scale insects.....	Orchid.....	Venezuela (1).
Targionia biformis (scale insect).....	do.....	Brazil (1).
Tenthecoris bicolor (Capsidae).....	do.....	Venezuela (1).
Tingitid eggs (lacewing).....	Rhododendron.....	England (1).
Do.....	do.....	Holland (8).
NEW YORK CITY (FEDERAL INSPECTION).		
Ants.....	Orchid.....	Colombia (10).
Do.....	do.....	Venezuela (2).
Asterolecanium sp. (scale insect).....	do.....	Panama (1).
Audreia sp. (cockroach).....	do.....	Colombia (2).
Blaberus sp. (roach, egg case).....	do.....	Colombia (1).
Blattid (roach, nymph).....	do.....	Do.
Do.....	do.....	Venezuela (1).
Camponotus abdominalis (?) (ant).....	do.....	Colombia (1).
Camponotus sp. (?) (ant).....	do.....	Do.
Capsid.....	do.....	Do.
Cryptocerus sp. (ant).....	do.....	Do.
Cryptoptilum sp. (Gryllid).....	do.....	Do.
Dasyposoma sp. (roach) (nymph?).....	do.....	Do.
Dasyposoma (?) sp. (roach).....	do.....	Do.
Diaspis boisduvalii (scale insect).....	do.....	Panama (1).
Fulvius atratus (Hemipteron; Capsidae).....	do.....	Colombia (1).
Isosoma orchidearum (Cattleya fly) (punctures).....	do.....	Colombia (6).
Do.....	do.....	Panama (1).
Do.....	do.....	Venezuela (2).
Largus cinctus.....	do.....	Colombia (1).
Lepidopterous cocoon, parasitized.....	do.....	Do.
Nyctobora sp. (cockroach).....	do.....	Do.
Periplaneta australasiae (roach).....	do.....	Do.
Do.....	do.....	Venezuela (1).
Phoetalia laevigata.....	do.....	Colombia (1).
Plagiolepis sp. (ant).....	do.....	Do.
Psocids.....	do.....	Do.
Pyralid larva.....	do.....	Colombia (2).
Roaches.....	do.....	Colombia (4).
Silvanus sp. (Cucujidae).....	(?).....	Venezuela (1).

List, by States, of pests collected—Continued.

State in which collected and name of pest.	Host.	Country of origin.
NEW YORK CITY (FEDERAL INSPECTION)—contd.		
Tenthecoris bicolor (Capsidae).....	Orchid.....	Colombia (2).
Do.....	do.....	Venezuela (1).
Thrips.....	do.....	Colombia (2).
Wasmannia auropunctata, undescribed variety of.....	do.....	Venezuela (1).
NEW YORK.		
Aphids (plant lice).....	Berberis (barberry).....	Holland (1).
Do.....	Fruit trees.....	England (1).
Aspidiotus perniciosus (San Jose scale).....	Peach.....	Canada (1).
Euproctis chrysorrhoea (brown-tail moth) (nest).....	(?).....	France (1).
Evtria buoliana (European pine shoot moth).....	Pinus sylvestris.....	Holland (1)..
Lepidosaphes ulmi (oyster-shell scale).....	Shrub.....	Do.
Porthetria dispar (gipsy moth) (egg mass).....	Azalea.....	Belgium (1).
Diseases:		
Bacterium tumefaciens (crown gall).....	Peach.....	Canada (1).
Do.....	Manetti.....	England (1).
NORTH CAROLINA.		
Apatela auricoma (dagger moth).....	Cherry.....	Holland (1).
Lepidopterous larva.....	Coniferous tree.....	France (1).
Notolophus antiqua (European tussock moth) (eggs).....	Tamarix.....	Do.
Diseases:		
Bacterium tumefaciens (hairy root).....	Apple seedlings.....	Do.
Phyllosticta sp.....	Cydonia japonica.....	Holland (1).
OHIO.		
Apatela auricoma (dagger moth).....	(?).....	France (1).
Do.....	Deutzia pride of Rochester.....	Do.
Do.....	Pear.....	France (3).
Do.....	Rose stocks.....	France (1).
Do.....	Snowball.....	Do.
Eriosoma lanigera (woolly aphid).....	Paradise apple.....	Do.
Evtria resinella (moth).....	Pinus mughus.....	Holland (1).
Grasshopper, nymph (Locustidae).....	Norway spruce.....	France (1).
Grub, white.....	In packing around seedlings.....	Do.
Lepidosaphes ulmi (oyster-shell scale).....	Boxwood.....	Do.
Do.....	do.....	Holland (4).
Notolophus antiqua (European tussock moth) (eggs).....	(?).....	France (1).
Do.....	Pear.....	Do.
Diseases:		
Bacillus amylovorus (blight).....	Pear seedlings.....	Do.
Do.....	Pear stock.....	Do.
OREGON.		
Lepidopterous cocoon.....	Azalea.....	Japan (1).
Lepidosaphes lasianthi (scale insect).....	Camellia.....	Do.
Pseudoaulidia paeoniae (scale insect).....	Azalea.....	Do.
Disease: Bacterium tumefaciens (crown gall).....	Roots of Photinia glabra.....	Do.
PENNSYLVANIA.		
Aphid (plant louse).....	Juniper.....	Holland (1).
Do.....	Maple.....	Do.
Aphid eggs.....	Apple.....	England (1).
Do.....	Beech.....	France (1).
Aspidiotus britannicus (scale insect).....	Bay.....	Holland (1).
Aspidiotus hederæ (ivy scale).....	Palm.....	Belgium (1).
Cilix glaucata (?) (family Drepanulidae) (Lepidoptera).....	Pear stocks.....	France (1).
Coccus hesperidum (soft brown scale).....	Bay.....	Holland (1).
Diaspis carueli (Juniper scale).....	Japan golden Juniper.....	Do.
Dichomeris marginellus (Juniper web worm).....	Chinese golden Juniper.....	Do.

List, by States, of pests collected—Continued.

State in which collected and name of pest.	Host.	Country of origin.
PENNSYLVANIA—continued.		
Eriophyes sp. (mite).....	Boxwood.....	Holland (7).
Eriosoma lanigera (woolly aphis).....	Apple stocks.....	France (1).
Do.....	Pear stocks.....	Do.
Euproctis chrysorrhoea (brown-tail moth) (old cocoon).....	Pinus mughus.....	Do.
Evetria buoliana (European pine shoot moth).....	do.....	Holland (4).
Do.....	Pinus uncinata.....	Holland (1).
Evetria buoliana (?) (European pine shoot moth) (?).....	Pinus montana.....	Do.
Do.....	Pinus mughus.....	France (1).
Do.....	do.....	Holland (2).
Evetria sp. (?).....	Pinus austriaca.....	France (1).
Lace bug eggs.....	Rhododendron.....	Holland (1).
Lepidosaphes ulmi (oyster-shell scale).....	Boxwood.....	Holland (10).
Leptobyrus explanata (Tingitid).....	Rhododendron.....	Holland (1).
Mite eggs.....	Junipers.....	Holland (8).
Mites (two species).....	Cycas revoluta stems.....	Japan (1).
Notolophus antiqua (European tussock moth) (eggs).....	Rose.....	Holland (1).
Phyllaphis fagi (?) (plant louse).....	Beech.....	Do.
Psylla buxi.....	Boxwood.....	Holland (23).
Spider, red.....	do.....	Holland (1).
Diseases:		
Ascomycetous fungus.....	Kalmia leaves.....	Do.
Bacillus amylovorus (?) (blight).....	Pear stock.....	France (1).
Bacterium tumefaciens (crown gall).....	Pear.....	Do.
Do.....	do.....	Holland (2).
Do.....	Pear stocks.....	France (3).
Do.....	Plum stocks.....	France (1).
Bacterium tumefaciens (hairy root).....	Apple stocks.....	France (4).
Do.....	Cherry.....	France (1).
Dendrochium albo-cinereum.....	Norway maples (?).....	Holland (1).
Exobasidium sp.....	Rhododendron.....	Do.
Exobasidium sp. (?).....	Azaleas.....	Do.
Do.....	Rhododendron.....	Holland (2).
Mahonia leaf spot fungus.....	Berberis (barberry).....	France (1).
Pestalozzia guepini.....	Rhododendron.....	Holland (1).
Pestalozzia guepini Desm. var.....	do.....	Do.
Pestalozzia sp.....	(?).....	Do.
Do.....	Rhododendron.....	England (1).
Do.....	do.....	Holland (5).
RHODE ISLAND.		
Evetria buoliana (European pine shoot moth) (at least 500).....	Pinus mughus.....	Holland (1).
Evetria buoliana (European pine shoot moth).....	do.....	Do.
Pseudococcus sp. (mealy bug).....	Azalea.....	Belgium (1).
UTAH.		
Apatela auricoma (dagger moth).....	Fruit stocks.....	France (2).
Eriosoma lanigera (woolly aphis).....	Roots of fruit stocks.....	France (1).
Diseases:		
Bacterium tumefaciens (crown gall).....	Apple.....	Do.
Do.....	Fruit stocks.....	Do.
Do.....	Pear.....	Do.
Bacterium tumefaciens (hairy root).....	Apple.....	Do.
Do.....	Pear.....	Do.
Botrytis vulgaris (gray mold).....	Fruit stocks.....	Do.
VERMONT.		
Aspidiotus hederæ (ivy scale).....	Palm.....	Belgium (1).

List, by States, of pests collected—Continued.

State in which collected and name of pest.	Host.	Country of origin.
VIRGINIA.		
Notolophus antiqua (European tussock moth) (eggs).	European linden.....	Holland (1).
WASHINGTON.		
Aphids (plant lice).....	Coniferous trees.....	Japan (1.)
Do.....	Japanese forest cedar.....	Do.
Bagworm cocoons.....	do.....	Do.
Lepidosaphes ulmi (oyster-shell scale).....	Boxwood.....	Holland (1).
Mantis egg masses.....	Japanese forest cedar.....	Japan (1).
WEST VIRGINIA.		
Lepidopterous pupa.....	Apple tree.....	France (1).
Disease: Bacterium tumefaciens (crown gall).....	Apple.....	England (1).
WISCONSIN.		
Beetle, small.....	Rose.....	Holland (1).
Muscoid fly.....	do.....	Do.
Disease: Botrytis sp.....	do.....	Holland (2).